

Shared Hosted Data Center Agencies & Operations PIJ Amendment / Change Request Phases 3/4

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Arizona Strategic Enterprise Technology

Project Requirements

Reviewed with ITAC last year (*remains the same*)

- *Shared Hosted Data Center(HDC) must:*
 - Be minimum a Tier 3 as defined by Telecommunications Industry Association(TIA)-942: Data Center Standards.
 - Large enough for expansion of State agencies footprint
 - Have both white (raised floor) space and Modular space
 - Meet all state & federal security requirements
- *Technology solution must:*
 - Provide redundancy by design
 - Allow leveraging and extending of State owned Fiber
 - Allow multi agency service hand off via equipment specifications

Scope / Recommended Solutions

Reviewed with ITAC last year (*remains the same*)

- Lease space at I/O Data Center
- Lease 4 strands of Commercial Fiber
- Fiber Splicing at the Capitol Mall - planned
- Acquire and Deploy Dense Wavelength Division Multiplexing (DWDM) to connect Capitol Mall to I/O via leased Fiber
- Acquire & Deploy Data Center switching Infrastructure

Original PIJ - Contemplated Phases

- Funding for Phase I (was requested for FY2017 and approved in the amount of \$5.7M) to establish presence in a shared HDC that all agencies can leverage, allowing to proceed with other phases to move out of the current State Data Center. **COMPLETE**

Future Phases (Proposed) to include:

- Phase II. Relocation of ADOA Hosted (co-located) agencies and ADOA services I.e. Servers that are not in the cloud. **COMPLETE**
- Phase III. Voice and Security Services relocation including SIP implementation. **RELOCATION COMPLETE; SIP IN PROCESS**
- Phase IV. Establishing & implementing solution for other aging State Data Center(s). **PLANNED to Reach Technical Goals**

IV&V Report Info-Tech - Key Plan Viability Findings

- Key Phases of project - Data Center Build, Relocation of hosted Agencies & Relocation of AZNET components were successfully completed. Overall, met key milestone deadlines and delivered ahead of time and under budget.
- The project team understood the aggressive timeline and successfully managed the process to completion.
- There was an experienced team in place and as required, the team added relevant skill sets to address gaps (PM support & financial analyst).
- Individual Agency strategic plans were in place. State mandated Cloud strategies were implemented as appropriate.
- ASET provided support and oversight to ensure Agency moves happened on time.
- **Data Center team monitored implementation and provided appropriate oversight and rigour.**
- The project ensured appropriate quality oversight in reconnecting the moved equipment.
- ASET senior management provided escalation support as well as key communications with Agency senior management.

ITAC 7/18/18 PIJ Amendment/Change Request

- Original PIJ AD16015 contained approval for funding to proceed with subsequent phases of a multi-phased approach and to ensure removal of all infrastructure currently within the State Data Center by 12/30/2018.
- The \$4.6 million July 2018 Change Request was planned to be submitted as a separate request, after progressively elaborating the project and identifying the requirements.
- This Change Request was approved in July 2018.

Budget Presented at July 2018 ITAC

Ongoing Expenditure (Operational Cost)

- DWDM Annual Maintenance	\$ 48,000
- 1 Flat Rate Business Line (1FB) - Mall Emergency/Elevator Connections Site	\$ 10,000

One Time Expenditure (Development Cost)

Required to complete the core relocation

- Virtual Gateways (VG350) Convert Analog Services on the Mall	\$ 300,000
- Power/Infrastructure Upgrades - Capitol Mall to Support Virtual Gateways	\$ 75,000
- Carrier Construction - Install 1FB at Each Site/ Back Ups	\$ 100,000
- SIP Equipment & Licenses - Voice Core Services	\$ 300,000
- Carrier Host Relocation - New Mall Ingress Site	\$ 335,000
- Rack and Power for Rows 3 & 4 - IO Data Center Build/Expansion	\$ 135,000
- Complete Top of Rack Switching	\$ 500,000
- Mall Fiber Splicing for Analog Services	\$ 100,000
- Relocation of Current Equipment (Servers)	\$ 400,000
- Core Equipment at IO Data Center and ADOA Security and Voice	\$ 1,600,000
- Labor and Install	\$ 500,000

Building Additional Capacity

- IO Data Center Capacity Build Out	\$ <u>294,000</u>
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TOTAL FY19 BUDGET

\$ 4,697,000

SHDC Budget Spend Timeline as of July 2018 ITAC



Current Change Request

Complete Remaining Scope: Installation of redundant fiber cable to 15 Capitol Mall buildings, including Cloud connectivity and Data Center equipment.

Financial: No additional dollars requested.

Change: End date of project to 6/30/2020.

Why: The fiber project was placed on hold until after 1510 data center was vacated to avoid service interruptions.

When Must the Money Be Spent?

Section 118, Paragraph H of SB1520 (also known as the “Budget Bill”) says:

“The amounts appropriated pursuant to this section from the automation projects fund established by section 41-714, Arizona Revised Statutes, in fiscal year 2018-2019 are exempt from the provisions of section 35-190, Arizona Revised Statutes, relating to lapsing of appropriations **until June 30, 2020**.”

What Has Been Spent, and What Is Left

Total FY19 Appropriation:	\$ 4,697,000
Less spent as of 4/2/19:	\$ 1,424,178
Less Encumbered/Committed:	\$ 1,928,684
Remaining Balance:	\$ 1,344,138

Remaining FY 19/20 Development Spend Forecast

Development Costs - FY19

Cloud and Data Center Connectivity (Equip.) \$ 454,660

Development Costs - FY20

Build Out and Complete Redundant Fiber Path To Capitol Mall Buildings \$ 670,000

Power/Infrastructure Upgrades Rows 3 and 4 \$ 130,000

Fiber Patch Cords, Jumpers and SFPs \$ 64,478

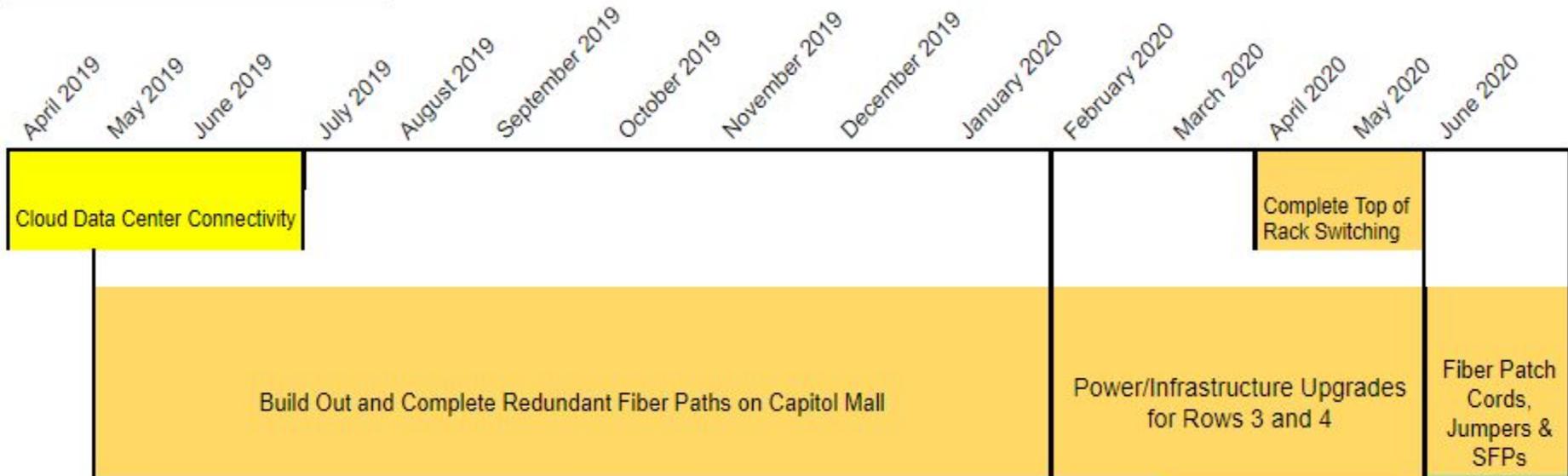
Complete Configuration of Top of Rack Switching \$ 25,000

TOTAL PROPOSED DEVELOPMENT SPEND FY20 \$ 889,478

TOTAL FY19 / FY20 PROPOSED SPEND \$ 1,344,138

Remaining Timeline

FY19 Appropriation Continues

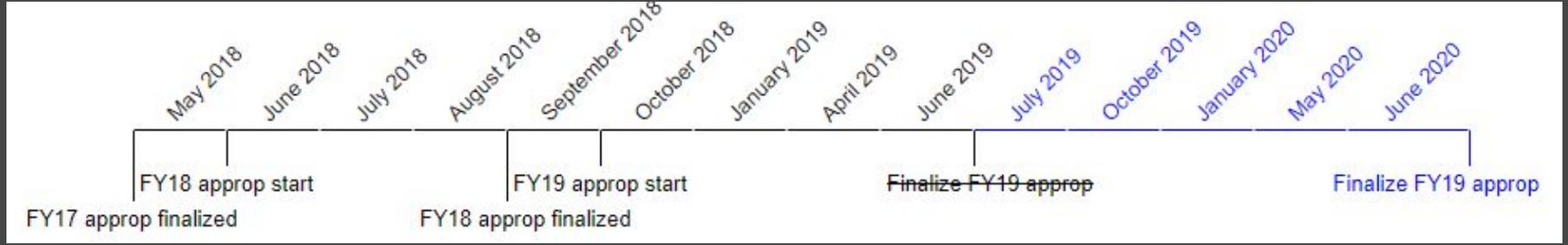


LEGEND:

- 2019 Development Costs
- 2020 Development Costs



New SHDC Budget Spend Timeline



QUESTIONS